REMARKS

All pending claim 1-6, 8, and 10-12 have been revised to place the claims in better condition for Appeal. In this respect, the examiner's suggestive change has been incorporated in claim 12 to overcome the § 112 rejection.

Moreover, independent claim 1 has been further revised to explicitly recite that the method is carried out by a computer to improve its form. Moreover, applicants submit that method claim 1 meets the "machine or transformation" test in light of *In re Bilski*, because (1) it explicitly recites a particular machine (e.g., computer programmed to carry out specific steps) or (2) it generates and stores new information, namely initial and final image classifications for each of the images. Applicants submit that no substantive changes to the claims have been made. Accordingly, applicants urge the examiner to enter this Amendment. No new matter has been introduced.

Claims 1-2, 4-5 and 12 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Simpson (*A Recurrent Neural Network Classifier For Improved Retrievals of Areal Extent of Snow Cover*, IEEE- vol. 39, Oct. 2001, pp. 2135-2147) in view of Loui (*Automatic Image Event Segmentation and Quality Screening for Albuming Applications*, IEEE-July 2000). Applicants respectfully traverse this rejection for the following reasons.

As previously explained (and acknowledged by the examiner), Simpson fails to disclose the claimed two sequential classification processes, namely generating a final image classification for each of the sequential images based on the respective initial content-based image classification, which is obtained based on information contained in the individual images, and a pre-determined temporal context model that considers the temporal succession of the sequence of images.

As acknowledged by the examiner, Simpson discloses two classification processes, FFNN and RNNCSS. In maintaining the above art rejection, the examiner asserts that because Loui discloses refining the event classification using two different levels of organizing sequential images, with the second level relying on the result of first level organization, it would have been obvious (because predictable results would have been obtained) for Simpson to run both processes (in parallel or sequentially). Specifically, the examiner equates (relying on Loui's Fig. 1) Loui's first level process to Simpson's FFNN process and Loui's second level process to Simpson's RNNCSS process.

First, the examiner fails to appreciate is that the FFNN process and the RNNCSS process are MUTUALLY exclusive. The FFNN process is for non-sequential images, where time sequence information does not provide any useful or relevant data. In other words, there simply would not have been any viable reason to run the RNNCSS process for non-sequential images, when the FFNN process, which is dedicated form non-sequential images, can do the same job.

Second, Simpson's FFNN and RNNCSS processes **BOTH** are based on spectral and textural image contents. The RNNCSS process uses the data from the previous sequential image and the data from the current image. Since the RNNCSS process already uses the spectral and textural information, it would be merely repeating the same process (for no apparent reason) if both FFNN and RNNCSS processes were applied to the **sequential** images as urged by the examiner. In other words, combining FFNN + RNNCSS processes for the sequential images would be worse off than running the RNNCSS process alone since it will be merely wasting processing time. As previously explained, Simpson's FFNN and RNNCSS processes are mutually exclusive, one (FFNN) dedicated for non-sequential images where time sequence provides no useful information, and the other (RNNCSS) dedicated for sequential images.

Third, combining the FFNN and RNNCSS processes in parallel (or sequentially) as urged by the examiner simply would not have worked because the images for running FFNN process do not provide any useful information for the RNNCSS process. Indeed, **what the examiner is essentially urging is processing non-sequential images with the RNNCSS process instead of the FFNN process**. For non-sequential images, running the RNNCSS process does not improve the classification result. See section (2) of page 2139 ("When such [high temporal sampling] data are available, a recurrent NN (RNNCCS) improves classification skill"). Since this implies that the RNNCSS process does not provide any more accurate results for non-sequential images, Simpon itself would have taught away from using the RNNCSS process for non-sequential images. Instead, it would have explicitly taught using a more simple process, namely the FFNN process.

Fourth, Loui would not have alleviated Simpson's shortcomings noted above because Loui discloses clustering events by date/time (first level organization) and clustering events by image content (second level) based on the

results of the first level organization. In contrast, independent claim 1 calls for first classifying the sequential images individually based on the information contained in the individual image to generate an initial content-based image classification for each of the images, and then using the initial content-based image classification and a pre-determined temporal context model that considers at least the temporal succession of the sequence of images to generate a final image classification. Accordingly, in contrast to the examiner's assertion (see page 8 of the Final rejection), Loui does not disclose or teach utilizing both content-based classification followed by temporal based classification to generate a revised classification. Rather, Loui at best discloses using a temporal based classification (day/time) followed by a content-based classification to obtain a final classification. Note the arrow direction from the first level to the second level (and not the other way around) in Loui's Fig. 1.

Claim 3 stands rejected under § 103(a) as unpatentable over Simpson in view of Loui and Tretter (USP 6,977,679). Claims 6, 8, 10 and 11 stand rejected under § 103(a) as unpatentable over Simpson in view of Loui and Huang (*Integration of Multimodal Features for Video Scene Classification based on HMM*, IEEE - Sept. 1999, pp. 53-58). Applicants submit that these references also fail to alleviate Simpson and Loui's shortcomings noted above.

Applicants submit that the pending claims patentably distinguish over the applied references and are in condition for allowance. Should the examiner have any issues concerning this reply or any other outstanding issues remaining in this application, applicants urge the examiner to contact the undersigned to expedite prosecution.

Respectfully submitted,

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